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Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION OFFICE OF THE SECRETARY

In the Matter of)	
)	
Redevelopment of Spectrum to)	
Encourage Innovation in the)	ET Docket No. 92-9
Use of New Telecommunications)	
Technologies)	

AMERITECH'S COMMENTS ON THE EMERGING TECHNOLOGIES RULEMAKING

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June 5, 1992

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Introduction and Summary

Ameritech is a regional holding company for, among other enterprises, several operating telephone companies and several companies providing cellular and paging services.¹ These companies, as common carriers, now use the spectrum which this proceeding proposes to "free up" for use by emerging technologies, such as personal communication services (PCS).

Ameritech has also undertaken one of the largest PCS experiments authorized to date by the Federal Communications Commission (the Commission).² Through the PCS trial and through other efforts by its telephone companies and mobile and paging units, Ameritech is at the

The Ameritech Operating (telephone) Companies are: Illinois Bell, Indiana Bell, Michigan Bell, Ohio Bell and Wisconsin Bell; the cellular and paging companies are all included in Ameritech Mobile Communications, Inc. (AMCI), another wholly, owned Ameritech subsidiary.

The license for this experiment is held by a wholly owned subsidiary, Ameritech Direct Communications, Inc., (ADCI), (put in license no.).

forefront in advancing new radio technologies and bringing to the marketplace new customer services based on those technologies.

Having the dual perspective of both the common carriers which presently use the spectrum for communications and businesses which seek that spectrum for future applications, Ameritech believes it is in a unique position to comment on the issues arising out of the Commission's proposed rulemaking: How should the Commission go about accommodating the demands of advanced technologies for new spectrum space and the needs of the current spectrum users for minimal disruption to their ongoing services.³

In the comments that follow, Ameritech provides its perspective to that question, including a discussion of (1) the suitability of the Commission's designation of the 1.8 to 2.2 GHz band as the spectrum appropriate for use by emerging technologies; (2) the extent to which Ameritech's common carriers use that band today and the estimated costs they would incur if forced to relocate to other spectrum or media; and (3) the appropriateness of the Commission's plan to transition the current fixed microwave users to other spectrum bands or other telecommunications media.

ET Docket No. 92-9, released on February 7, 1992.

1. The 1.8 to 2.2 GHz Band Is An Appropriate Choice for Emerging Technologies Use

The NPRM articulately states the problem the industry now faces:

While technological advancements promise the public a broad range of new radio communications services, the current overcrowded spectrum is incapable of readily supporting the full implementation of those services.

The Commission's proposal in this NPRM -- the opening of the 1.8 to 2.2

GHz spectrum band for use by new technologies through the deliberate transitioning of current band users to other spectrum and media -- is a good solution to that dilemma.

Ameritech recognizes that the 1.8 to 2.2 GHz band proposed by the Commission for new services currently provides spectrum space to some of the most vital services underlying this country's commercial and public infrastructures. The band serves, among other users, common carriers (including the Ameritech operating telephone, mobile and paging companies), utilities, railroads, petroleum companies and local government public safety entities. And yet, given the characteristics of the spectrum map and the Commission's need to find an amount of spectrum space which would be significant enough to support a diversity of new technology based services, its choice of 1.8 to 2.2 GHz range remains on the mark.

The spectrum study which accompanied the Notice of Proposed Rulemaking (NPRM), adequately details the reasons that this band fits the current marketplace and administrative needs. However, of the justifications articulated in the study, two are of particular note.

First, while any accommodation of users from one band to other spectrum or media would be difficult, current use on the proposed band -non-governmental fixed microwave -- makes the transition at least possible. As pointed out by the Commission's spectrum study, the major considerations for relocation to other spectrum or other media for these users are equipment and process related. Unlike other bands which were under consideration, the 1.8 to 2.2 GHz range would not involve relying on the occurrence of future technological developments (e.g., to effectuate the relocation of broadcast bands) or dealing with spectrum areas outside of the Commission's direct control (e.g., government spectrum). The transition concerns in the 1.8 to 2.2 GHz band are, for the most part, within the control of the Commission and the parties immediately affected by the proposed move. Thus, the consequences of the Commission's choice come down to (1) fostering negotiations between future and current users to manage the costs of transition; and (2) implementing rule changes so that the transition can be accomplished with efficiency and speed. While broad in scope, such barriers in the 1.8 to 2.2 spectrum range are not insurmountable.

Second, the Commission's focus in the 1 to 3 GHz range recognizes that the American spectrum for emerging technologies must be compatible with international developments. The World Administration Radio Conference - 1992 (WARC '92), focused on designating spectrum in this area for satellite and mobile uses. Japan and several European countries are also centering mobile communication efforts here.

It is important for American interests that the frequencies which the Commission designates for emerging technologies -- especially for PCS -- parallel global developments. If PCS ever is to go beyond the experimental stage to mass consumer services, it will happen because of global market and economic forces. More important, American enterprises must be able to participate in that worldwide expansion. By its designation of the 1.8 to 2.2 GHz band for emerging technologies, the Commission takes another positive step in support of those national interests.

2. Current Ameritech Use in the 1.8 to 2.2 GHz Band and Estimated Transition Costs.

Several operating units of Ameritech currently employ 2 GHz radio equipment in a variety of fixed service applications.⁴ In general, 6 GHz or 11 GHz replacement systems, with adjustments, could to be suitable for most of these applications. Much of the current equipment is used in shorthop configurations (e.g., in the southern Illinois area) for which rugged terrain and potential flooding conditions make microwave radio an especially attractive choice of medium. Several paths cross the Mississippi River; in these cases, substitution of fiber facilities would be an extremely costly alternative.

Preliminary estimates indicate that Ameritech's total costs for immediate replacement of all existing 2 GHz usage throughout the region (including design, engineering, equipment, labor, and training costs) would

The units, all operating as common carriers, include telephone, cellular and paging enterprises.

total not more than \$7 Million. In addition to these directs costs, it is likely that substantial effort would be required to facilitate frequency coordination between existing higher-band users and relocated 2GHz users.

For example, under the Commission's proposal, numerous narrowband private systems would be migrated to the common carrier bands which are now largely populated by heavily-loaded wideband systems. Differences between the current channelization plans for narrowand wideband systems will likely require significant coordination effort to avoid inefficient spectrum use in the proposed new environment. The successful adaptation of unfamiliar administrative processes and technical standards by newly-migrated users will also likely impose some practical costs. In short, transition is possible, given that care is taken to avoid service degradation or disruption and to assure the adequate recovery of transition costs.

3. The NPRM's Transition Program, a Good First Step in Encouraging the Development of New Technologies and Services, Needs More Detail

The transition plan the Commission proposes in its NPRM for shifting the use in the designated band from fixed microwave to more technically advanced services is a good start. However, it requires details to fill out the proposal and a short, healthy debate over the merits of all those proposed details. The following discussion highlights some of Ameritech's concerns in the areas of marketplace negotiation between old and new spectrum users, the cost details necessary to facilitate those negotiations, and questions about the substantive rights which could be transferred by these negotiations. Undoubtedly, other commenters will supply other concerns.

While all parties concerns should be weighed in these deliberations, the Commission must be careful not to let the process of this rulemaking overwhelm its purpose. The problems of this particular NPRM are complex but not unresolvable. The Commission should take care to establish at the outset a rigorous but reasonable schedule for the progress of this rulemaking and hold others to it.

A. Public Safety Considerations

The public safety functions operating in this spectrum band, as the NPRM suggests, are significant enough to be given dispensation from any transition plan. Ameritech agrees that a service certified by the Commission as one involving public safety should never slip into secondary status by the passage of time alone.

This is not to say that a public safety user could not take advantage of an accommodation offer by an emerging technology entity, only that the Commission's rules should not force accommodation.

However, given the expanse this exception offers, it might be appropriate for the Commission in its rules to designate those current users who would be entitled to such a public safety exception.

B. Marketplace Negotiations

This NPRM suggests that marketplace negotiations can serve as a vehicle to help fixed microwave users out of the 1.8 to 2.2 GHz band and other, newer technologies into it. Ameritech believes such negotiations are a reasonable means of accelerating the availability of frequencies.

However, leaving this accommodation process solely to the give and take of business dealings, without more Commission guidance, could prove frustrating to both the existing users and the parvenu licensees and result in more, not less delay. Indeed, if there are not more specific rules as to the timing and procedures for these negotiations, either grandfathered microwave licensees acquire a disparately strong bargaining position, permitting them to extend the use of their current equipment and frequencies to gain an undue advantage in compensation claims or they get rushed out in such a way as to disturb functioning services. Indeed, Commission established parameters are necessary to mitigate against the windfall consequence the NPRM seeks to avoid. Therefore, the Commission needs to develop rules which outline the boundaries of the negotiation process with regard to both timing and the elements of compensation.

C. The Laundry List Approach

The Commission negotiation guidelines should articulate parameters of the negotiation process including (1) a list prioritizing the alternatives available to the microwave users; (2) the kinds of costs which can be consideration in negotiation; and (3) the timing of the transition.

Inclusion of such a "laundry list" in an actual rule will provide a more efficient structure to the negotiation process. The battle over which elements are appropriate to include in the negotiations will have to take place somewhere. It may as well take place in the context of this rulemaking instead of in an endless series of litigation skirmishes over these matters as the negotiations actually unfold.

While there may be elements to the list which cannot be foreseen, for the most part, the vast majority of the issues and costs can be accounted for now. By defining many of them now, the Commission would be expediting the process considerably.

(1) Prioritization of Available Alternatives. If every one of the microwave users had to find new spectrum space, the Commission's task in this proceeding would be made significantly more difficult. But, as the NPRM recognizes, a frequency move is not necessarily the only alternative to the current microwave users needs. It might be appropriate for the Commission to set out, as a matter of policy, priorities for reassignment of current 2 GHz band point-to-point users.

For example, given the scarcity of spectrum and the abundance of other media, the <u>first</u> order in any negotiation should be consideration of the availability of a non-radio alternatives in light of the current microwave users needs. Of course, the measurement of those needs must be justified in terms of radio capabilities -- both mobility and economy should be evaluated. In order to enforce this conservationist approach, the Commission should require that any negotiated settlement filed for Commission approval be accompanied by a written appraisal of an alternate non-radio media approach.

(2) Appropriate Costs. The kinds of costs which are eligible for compensation by the new entrant should be ascertainable and included in the negotiation rules. In terms of relocation to other microwave frequencies, these would involve: (1) actual equipment costs; (2) system

design costs; (3) costs related to the need for more or fewer transmitter sites due to shorter path lengths at higher band frequencies (such as additional transmitters, site acquisition, power acquisition, construction costs etc.); (3) frequency coordination costs; (5) administrative costs (legal, engineering and Commission filing fees); and (6) zoning and other regulatory approvals.

Costs associated with switching to alternative media might include: (1) system design costs; (2) costs of fiber/cable facilities; (3) right of way acquisition costs and ongoing easement costs; (4) zoning and other regulatory approvals. In addition to these, it would be appropriate for the Commission in defining the laundry list to discuss any resulting benefits which inure to the current users as a consequence of the transition which may offset the compensation calculation. These could include the benefits gained by the microwave user switching over to a higher capacity system from which the user may profit.

(3) <u>Transition Timing</u>. The Commission's proposal suggests a transition period of 10 to 15 years, during which PCS (or other new technology users) would operate with microwave users on a co-primary basis. This period was suggested to permit a complete amortization of existing 2 GHz equipment.

Ameritech believes that for a limit of ten to fifteen years co-primary status between PCS and fixed microwave users is not out of line. After that time, the fixed microwave use would go to secondary status. Indeed,

Ameritech in its PCS trial has developed a frequency agile approach to PCS

which should provide interference free sharing between the two types of services during some part of the transition period.

However, the Commission's negotiation rules need more than this outside limit. With such breadth, the transition might drag out and thus provide an undue leverage in the bargaining process. Within this limit, therefore, a mechanism should be developed whereby the parties can "start the clock" on the negotiation process and also define a clear end to it.

For example, it would be reasonable that an internal negotiation cycle of two years (six months beyond the 18 month construction period normally granted for new microwave licenses) would start (1) upon notification of the microwave user by a PCS licensee of its interest in clearing the spectrum; and (2) the presentation of a transition plan to the fixed microwave user by the PCS licensee. During that two year period negotiations would commence and be expected to end. An extension of the two year period could occur only upon mutual agreement of the parties or could be granted by the PCS licensee upon application to the Commission. Of course, the microwave user would not necessarily have to move within two (2) years, just complete contract negotiations; the exact timing of the transition would be a legitimate subject of negotiation.

If settlement is not achieved during the two year negotiation period, several consequences are possible. First, the Commission may consider establishing an arbitration mechanism to deal with the impasse potential. Second, the Commission could mandate that within ten (10) years of the start of its transition program, each microwave user must file (1) its own

transition plan; or (2) a completed contract; or (3) a statement that negotiations are taking place. Failure to comply could mean the loss of the right to recover any compensation for transition costs.

D. Rights Acquired

It would appear incumbent upon the Commission to define the quality of <u>rights</u> which can be negotiated for during the transition. The contracting process must be able to convey at a minimum a limited type of use right from the microwave user to the PCS licensee. Without such definition, there would be nothing over which to negotiate. Given that the Communications Act somewhat limits private rights in spectrum, it would appear prudent that the legalities of this question be worked out before it comes to meet the scrutiny of a court test (as it most certainly will).

Respectfully submitted,

Ameritech

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June 5, 1992